

### **REMARKS**

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claims 1-4, 10 and 12 are pending. Claims 1, 10 and 12 are amended.

#### **Rejection of Claims 1-4, 10 and 12 Under 35 U.S.C. §101**

The Office Action rejects claims 1-4, 10 and 12 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant respectfully traverses this analysis and submits that claims 1-4, 10 and 12 comply with the requirements of 35 U.S.C. §101 in that they do create a useful, concrete and tangible result.

The Office Action asserts that these claims fail to comply with the requirements of Section 101 because “producing a solution if the further node is a leaf node” is not useful, concrete and tangible result because “the form producing is still unknown if the further node is not a leaf node. The produced solution if the leaf node is a leaf node is not being available for use in the method of computing an answer to query path pattern [sic].” Applicant traverses this analysis because it is illogical and fails to properly analyze what is actually being claimed by introducing questions about what is not being claimed. In other words, Applicant respectfully asserts that the limitation in claim 1 of producing solutions if the further stream node is a leaf node provides a useful, concrete and tangible result, notwithstanding what other steps could be claimed. Through the process of computing an answer to a query path pattern, the produced solution can provide a useful, concrete and tangible result inasmuch as it answers a query.

Therefore, it is clear that a concrete and useful result is recited in claim 1. However, the Office Action does not perform any analysis on whether that limitation is useful and concrete but rather states that producing such a solution is not useful because it is unknown what the step should be if the further node is not a leaf node. Although the invention recited in claim 1 does

not include the steps taken if the node is not a leaf node, that should not have any bearing on whether what is recited reflects a useful and concrete result. An example will illustrate the point. Assume that there is a claim covering a faucet that automatically turns on based on a sensor that senses motion underneath the faucet. The claim could be recited as follows. An automatic faucet comprising a valve communicating with a sensor, wherein the sensor upon sensing motion actuates the valve to begin the flow of water. Recited in this example claim is what happens when motion is sensed namely, to turn on water. Clearly, a useful, concrete and tangible result occurs in this claim wherein water flows upon the sensing of motion. What is not recited in this claim is what happens when motion is not sensed or what happens when motion stops being sensed. Does water continue to flow indefinitely? Does the sensor when motion stops cause the valve to actuate to turn off the water flow? Clearly in this example there is a concrete and tangible result, but the claim simply does not include all of the contingencies and alternates which may involve other patent claims or various other processes for what happens with alternate values to the sensor.

This example is applicable to the present case. The useful and concrete result deals with what happens when the further node is a leaf node. In the example claim above, the action is starting the flow of water. Accordingly, Applicant respectfully submits that the alternate processing that may or may not occur if the further node is not a leaf node is simply not a part of this claim and does not render unpatentable under Section 101 the positively recited useful and concrete result that already exists in claims 1, 10 and 12. Accordingly, Applicant respectfully submits that claims 1-4, 10 and 12 appropriately recite subject matter that complies with 35 U.S.C. §101.

**Rejection of Claims 1-4, 10 and 12 Under 35 U.S.C. §112**

The Office Action rejects claims 1-4, 10 and 12 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claims 1, 10 and 12 and respectfully submits that these claims now comply with Section 112. Applicant notes that the amendments provided are not made to introduce limitations to overcome the prior art and that these claims are arguably patentable without these amendments. But, to more fully clarify the claim language Applicant has made the above amendments.

The Office Action rejects claims 1, 10 and 12 because of the clause “the stream node” renders the claims indefinite because it is not clear what is the stream node. The Office Action queries whether it is an XML document containing positional attributes or what item if being referenced. Applicant submits that amended claim 1 clarifies what the stream nodes are. Applicant would also submit that reference to the specification further makes clear and certainly would teach one of skill in the art what the stream nodes are. For example, paragraph [0046] of the specification teaches associating each node query  $q$  in a query twig pattern with a stream  $T_q$ . The stream contains the positional representations of the database nodes that match the node predicate at the twig pattern node  $q$ . The nodes in the stream are sorted by their (DocId, LeftPos) values. Throughout the specification, nodes in the stream are discussed and analyzed and the manipulation and use of these stream nodes is sufficiently disclosed. Accordingly, Applicant respectfully submits that one of skill in the art would understand, according to the requirements of 35 U.S.C. §112, the meaning of the recited clause “the stream nodes”. Applicant respectfully submits that claims 1, 10 and 12 with regards to this clause are patentable.

The Office Action also asserts that the language of “partial answer” and “full answers” in claims 1, 10 and 12 are indefinite because it is not clear what are the answers. The Office Action

asks “is this a query result and how can the system remove the partial answer”. Applicant respectfully notes that these claim terms, when read in light of the teachings of the specification, would certainly teach one of skill in the art what these terms means and how they are utilized. Applicant notes paragraph [0050] in which the algorithm path stack is discussed. This algorithm is shown in way of pseudo code in figure 4. Paragraph [0050] notes that in line 2 of the algorithm, it identifies the stream containing the next node to be processed. Then it teaches that lines 3-5 remove partial answers from the stacks that cannot be extended to total answers, given knowledge of the next stream node to be processed. Based on this and other teachings in the specification, Applicant submits that one of skill in the art would understand what a partial answer and a full answer means and further using the path stack algorithm how to remove partial answers from the stack that cannot be extended to full answers. Applicant notes that this discussion of the specification is not meant to incorporate unclaimed limitations but to give an explanation of why one of skill in the art when reading the specification would obtain enough basic understanding of an example process such that one could practice the limitations recited in the claims.

Finally, the Office Action rejects claims 1, 10 and 12 asserting that the clause “producing solutions if the further node is a leaf node” renders the claims indefinite because it is unclear what happens if the further node is not a leaf node. Applicant incorporates the argument above relative to the Section 101 rejection and note that what is positively recited by way of producing solutions if the further node is a leaf node is a definite limitation and an understandable limitation of one of skill in the art. Just in the same sense that it would be clear to one of skill in the art how to turn a faucet on when a motion sensor senses motion is understandable notwithstanding there may be multiple ways of handling the opposite process of how to turn off water or what to do when a motion sensor does not sense motion. Applicant would submit that

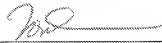
just because claims 1, 10 and 12 do not recite what happens when a further node is not a leaf node this is not a sufficient argument to render what is recited as not complying with Section 112. Accordingly, Applicant would respectfully submit that claims 1, 10 and 12 each comply with 35 U.S.C. §112 and further that claims 2-4 which depend from claim 1 are also in compliance with Section 112.

**CONCLUSION**

Having addressed all rejections and objections, Applicant respectfully submits that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited. If necessary, the Commissioner for Patents is authorized to charge or credit the **Isaacson, Irving, Stelacone & Prass, LLC, Account No. 50-2960** for any deficiency or overpayment.

Respectfully submitted,

Date: November 21, 2006

By: 

Correspondence Address:

Thomas A. Restaino  
Reg. No. 33,444  
AT&T Corp.  
Room 2A-207  
One AT&T Way  
Bedminster, NJ 07921

Thomas M. Isaacson

Attorney for Applicant  
Reg. No. 44,166  
Phone: 410-286-9405  
Fax No.: 410-510-1433